

## Arizona Department of Environmental Quality



via e-mail

November 19, 2015 FPU16-108

Ms. Catherine Jerrard AFCEC/CIBW 706 Hangar Road Rome, NY 13441

RE: WAFB - ADEQ Opinion on ST012 Contaminant Containment Concern

Dear Ms. Jerrard:

Arizona Department of Environmental Quality (ADEQ) reviewed Steam Enhanced Extraction (SEE) progress report documents and other periodic SEE program monitoring reports. ADEQ management wishes to express two significant opinions concerning the ongoing site ST-012 activities:

- (1) A non-containment concern exists
- (2) ST-012 may be a site to demonstrate an ADEQ agency-wide goal to accelerate clean up processes

This document purpose is to place forth ADEQ's opinions. Following are brief context explanations:

## **ADEQ General Opinions**

- 1. ADEQ remains concerned contaminants are not captured. Free product NAPL and elevated contaminants of concern concentrations are reported at Steam Enhanced Extraction (SEE) perimeter wells.
- 2. ADEQ remains concerned that the contaminant plume is not characterized. ADEQ's opinion is the existing monitoring well network is insufficient to delineate migrated contaminants.
- 3. ADEQ management believes clean up can be accelerated. Management opinion is that remedial clean up activities could be currently performed in perimeter areas to accelerate clean up. Monitoring and remedial action wells can be placed and utilized outside of the SEE direct impact areas.
- 4. No compelling reason exists to postpone remedial action, delineation and sentinel wells beyond the active SEE region. If well locations indicate significant NAPL accumulations, the implementation of enhanced bioremediation (EBR) phase may be impractical compared to NAPL recovery achieved with continued operation of the existing extraction system. If significant NAPL accumulations are found in EBR target areas, the EBR technology may be deemed unsuitable to meet cleanup timeframes.

Ms. Catherine Jerrard, AFCEC FPU16-108, ADEQ Comments – WAFB, Opinion on ST012 Contaminant Containment Concern; Site ST012 Page 2 of 2

## Closure

ADEQ may add or amend comments if evidence to the contrary of our understanding is discovered at the referenced location; if received information is determined to be inaccurate; if any condition was unknown to ADEQ at the time this document was signed; or if complementary regulatory agencies bring valid and proven concerns to our attention.

Thank you for the opportunity to comment. Should you have any questions regarding this correspondence, please contact me by phone at (602) 771-4121 or e-mail miller.wayne@azdeq.gov.

Sincerely,

Wayne Miller

ADEQ Project Manager Federal Projects Unit

Remedial Projects Section

Waste Programs Division

cc: Catherine Jerrard, USAF AFCEC/CIBW

Carolyn d'Almeida, U.S. EPA Terie Glaspey, AFCEC/CIBW Steve Willis, UXO Pro, Inc.

ADEQ Reading and Project File

catherine.jerrard@us.af.mil dAlmeida.Carolyn@epamail.epa.gov terie.glaspey@us.af.mil steve@uxopro.com